# SOUTHEAST ALASKA PURSE SEINE FISHERY,

### 2000 MANAGEMENT PLAN



by

Region I Staff

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#### INTRODUCTION

This plan describes how the Southeast Alaska salmon purse seine fishery will be managed during the 2000 season and includes expected run sizes, harvest strategies, and related management issues. The plan is based on the Alaska Department of Fish and Game (ADF&G) 2000 preseason pink salmon forecast, historical escapement, and fishery performance data. The ADF&G area management biologists listed at the end of this document can provide further details regarding the implementation of the plan in their respective areas.

Regulations allow purse seine fishing in Districts 1 (Sections 1-C, 1-D, 1-E, and 1-F only), 2, 3, 4, 5, 6 (Sections 6-C and 6-D only), 7, 9, 10, 11 (Sections 11-A and 11-D only), 12, 13, and 14. Purse seining is also allowed in terminal hatchery fishing areas at Nakat Inlet, Carroll Inlet, Neets Bay, Kendrick Bay, Eastern Passage, Deep Inlet, Silver Bay, and Hidden Falls. Although the areas specified above are designated seine fishing areas, specific open areas and fishing periods are established by emergency order.

On average, purse seiners harvest 70% to 90% of the salmon caught in all Southeast Alaska commercial fisheries. Because pink salmon is the primary species targeted by the seine fleet, management actions are based on the abundance of pink salmon stocks. Other species are generally harvested incidental to pink salmon. On average, sockeye and coho salmon account for approximately 2%, chum salmon 7%, and chinook salmon less than 1% of the total purse seine salmon harvest.

Tagging studies of adult pink salmon have demonstrated that the stocks in Southeast Alaska exhibit a distinct separation between the northern and southern portions of the region. For purposes of catch tabulation and management, Districts 1-8 are grouped as "southern Southeast" and Districts 9-14 as "northern Southeast."

Inseason assessments of pink salmon run strength are determined primarily from spawning escapement information obtained from aerial surveys of terminal areas and streams and from fishery performance data (catch and catch per unit effort, or CPUE). Department staff and researchers at the University of Alaska Fairbanks, Juneau Center for Fisheries and Ocean Sciences, use fishery performance data and associated information to make inseason forecasts of pink salmon returns to northern and southern Southeast Alaska. The department also charters purse seine vessels to conduct test fishing assessments of run strength in selected index areas and monitors pink salmon sex ratios in the commercial harvest to evaluate run timing.

### 2000 Pink Salmon Forecast

The department is forecasting a strong pink salmon return for 2000. This indicates a harvest prediction range of 36 to 50 million fish. The harvest forecast includes 2.4 million hatchery-origin pink salmon. The department will attempt to achieve a pink salmon escapement index of 6 to 9 million in southern Southeast and an index of 3 to 7 million in northern Southeast Alaska.

The 2000 pink salmon harvest forecast is based on a subjective combination of statistical forecast models, historic average harvests, and expert opinion. Three statistical models using multiple linear regressions that included winter air temperatures and brood year escapements as independent variables and harvest as the dependent variable were used. These models include 30 years of data (1967 - 1998). These models all predicted a similar harvest estimate in the excellent category (>50 million).

The strength of the pink salmon return will be monitored on a weekly basis through two inseason prediction programs. In southern Southeast, inseason estimates of run strength will be calculated from weekly purse seine catch, CPUE, and pink salmon sex ratio data. Pink salmon CPUE from the Icy Strait commercial troll fishery will used to estimate run strength in northern Southeast Alaska. Run strength of individual stocks and stock groups will also be intensively monitored via aerial, boat, and foot surveys.

#### GENERAL MANAGEMENT GOALS

The primary management goals for the 2000 Southeast Alaska purse seine fishery are as follows:

- 1. Obtain overall pink and chum salmon spawning escapement goals with the best possible distribution to all systems.
- 2. Provide for an orderly fishery while harvesting fish in excess of spawning escapement needs.
- 3. Minimize, to the extent possible, the interceptions of salmon destined for fishing districts where weak returns are expected.
- 4. Promote a harvest of good quality fish within constraints dictated by run size and timing.
- 5. Manage the District 4 purse seine fishery consistent with the provisions of the U.S./Canada Pacific Salmon Treaty.
- 6. Restrict the total purse seine harvest of chinook salmon (28 inches or larger) to no more than 4.3% of the all-gear chinook salmon catch ceiling established for the 1999/2000 season.
- 7. Manage the seine fishery in the waters of District 12, north of Point Marsden (along the Hawk Inlet Shore), and in Section 14-C north of the latitude of Porpoise Islands, consistent with the Northern Southeast Purse Seine Management Plan (5 AAC 33.366).

### **GENERAL MANAGEMENT PROBLEMS**

The department will strive to maintain the high quality of the harvest achieved in recent years. This will mean an aggressive fishing schedule early in the season in areas where strong returns are expected. As long as run strength warrants, the department also intends to continue managing the seine fishery on a 2-day-on/2-day-off fishing schedule during the peak of the season. This fishing schedule has worked well for the processing industry, purse seiners, and the department in previous years and alleviates some problems associated with obtaining high quality when large numbers of fish are harvested. There may be times, however, when high pink salmon abundance or lack of fishing effort in some areas requires extensions of fishing time beyond this schedule. For example, if the pink salmon return is large, additional fishing opportunity may be given in late August in some areas to increase the harvest of good quality salmon. Additionally, in some more remote fishing locations, additional fishing time may be used to increase fishing effort in order to harvest surplus returns. Whenever possible, additional fishing time will be announced during closures rather than during the middle of openings, and openings will be scheduled prior to, rather than following regular openings.

For the 2000 season, the fishery opening and closing times will be as follows: 1) from the start of the seine season (June 22) through approximately August 15 - 5:00 a.m. to 8:00 p.m.; 2) from approximately August 15 through the end of the pink salmon season - 6:00 a.m. to 9:00 p.m.; and 3) from the start of the chum salmon season until the season closes - 7:00 a.m. to 7:00 p.m.

### CHINOOK SALMON HARVEST

The department is required to manage the Southeast Alaska purse seine fishery for a harvest of 4.3% of the annual all-gear chinook salmon catch ceiling determined under the terms of the Pacific Salmon Treaty [5 AAC 33.367]. Prior to 1997, the purse seine fishery was limited to a fixed quota of 11,400 chinook salmon (not including Alaska hatchery-produced fish). The purpose of the regulation is to make management of the purse seine harvest of chinook salmon more consistent with the new abundance-based management approach agreed to by U.S. Section of the Pacific Salmon Commission. The all-gear chinook salmon catch ceiling has not been established as of the date this management plan was published. However, for example, if the all-gear ceiling is set at 263,000 chinook salmon, the 4.3 percent purse seine allocation will equal 11,400 chinook salmon.

The board has adopted size limits [5 AAC 33.392] and directed the department to manage the purse seine fishery such that incidental mortality from catch and release is minimized. The specific provisions for management of the seine fishery harvest of chinook salmon are as follows:

- 1. Chinook salmon taken in the purse seine fishery that are less than 28 inches in length (as measured from the tip of the snout to the tip of the tail) will not be counted against the chinook harvest quota.
- 2. Purse seiners may take but may not sell chinook salmon between the sizes of greater than 21 and less than 28 inches in length.
- 3. Purse seiners may possess and sell chinook salmon that are less than 21 inches (approximately 5 lb. or less).

Non-retention of 28-inch and larger chinook salmon will be the primary management measure for maintaining the catch limit. Chinook salmon non-retention will be required early in the season when total salmon catch rates are low. This will allow a more efficient release of chinook salmon and minimize the impact of incidental mortality. Retention of chinook salmon will be permitted for as long as possible during the time period when the catch rate for other species is high. During these retention periods, the department encourages seiners to release any live chinook salmon unharmed. This will reduce chinook salmon mortality and could increase the number of retention periods. Once the quota is reached, non-retention regulations will be reinitiated.

### Implementation Plan

Purse seiners can anticipate periods of non-retention of chinook salmon (28 inches or longer) during openings in June and July. Following the non-retention period, seiners will be allowed to retain chinook salmon 28 inches or larger until the catch quota is reached. This retention period is expected to be of short duration and will be announced via department news release.

During periods of non-retention, seiners are encouraged to avoid fishing in areas with high concentrations of chinook salmon and to quickly release those caught in a manner that minimizes mortality. To ensure that small (less than 21 inches) chinook are not counted against the quota, the department needs the cooperation of the fishing industry. To accomplish this, all chinook salmon sold that are 28 inches or longer must be specified on fish tickets as species code 410; this is pre-printed on each fish ticket. Chinook salmon 21 inches or less should be indicated on fish tickets as species code 411. This code will need to be handwritten on the fish ticket at the time of sale because it is not pre-printed.

### SOUTHERN DISTRICTS PURSE SEINE FISHERY

#### 2000 Pink Salmon Returns

Parent-year (1998) pink salmon escapements were above the midpoint goal of 7.6 million fish for southern Southeast Alaska. The pink salmon escapement indices (bias-adjusted) totaled 8.55 million fish.

# Management Problems

Pink salmon escapements were well distributed throughout southern Southeast Alaska in 1998. The southern Southeast Alaska pink salmon escapement goal index midpoint is 7.6 million fish, the 1998 escapement indices totaled 8.55 million. Index escapement goals were exceeded in Districts 1, 2, and 3, but were below goals in Districts 5, 6, 7, and 8. However, over wintering conditions may have been detrimental to some smaller systems due to low water flows and cold weather. The department will monitor early season returns to these areas and take appropriate conservation actions as needed.

Poor escapements of sockeye salmon to Hugh Smith Lake in Boca de Quadra (District 1) continue to be a conservation concern. The escapement goal for this system is 15,000 to 35,000 fish. The total return for Hugh Smith sockeye in 2000 is forecast to be approximately 17,500 fish. Harvest rates on Hugh Smith sockeye can range from 50% to 90%. If Hugh Smith sockeye escapements in early July are inadequate, area restrictions may be implemented by mid-July in the vicinity of Boca de Quadra. The duration and the extent of the closed area will be based upon observed escapement of Hugh Smith sockeye salmon and the need to harvest surplus pink salmon stocks bound for Boca de Quadra. Long term plans to rebuild the Hugh Smith sockeye salmon stock include inseason management actions and lake bio-enhancement.

### Management Plan

The southern Southeast Alaska area purse seine management plan consists of separate segments for the District 4 fishery, the inside districts pink salmon fishery, the McDonald Lake sockeye fishery, the fall chum salmon fishery in Cholmondeley Sound, and hatchery terminal area fisheries.

### **District 4**

In the spring of 1999 a new ten-year agreement was reached under the Pacific Salmon Commission. The new agreement calls for the following:

- A. Manage the Alaskan District 4 purse seine fishery prior to Statistical Week 31 to:
  - i. achieve an annual catch share of Nass and Skeena sockeye of 2.45 percent of the Annual Allowable Harvest (AAH) of the Nass and Skeena sockeye stocks in that year.
  - ii carry forward from year to year annual deviations from the catch share arrangement.

The AAH each year will be calculated as the combined total run of adult Nass and Skeena sockeye salmon in that year less the combined Nass and Skeena escapement target of 1.1 million fish. In the event that the actual Nass and Skeena spawning escapement for the season is below the target level, the actual spawning escapement will be used in the AAH calculation.

The total run calculation includes the catches of Nass and Skeena sockeye salmon in the principal boundary area fisheries and the spawning escapements to the Nass and Skeena watersheds. This includes the catch of Nass and Skeena sockeye salmon in Alaska Districts 1, 2, 3, 4, and 6 net fisheries; Canadian Areas 1, 3, 4, and 5 net fisheries and Canadian Nass and Skeena in-river fisheries. Catches in other boundary area fisheries may be included as jointly agreed by the Northern Boundary Technical Committee.

Although the management intent shall be to harvest salmon at the allowable percentage AAH, it is recognized that overages and underages will occur and an accounting mechanism is required. The payback mechanism for the fishery will be based on the number of fish.

The management intent for each fishery shall be to return any overages to a neutral or negative balance as soon as possible. After five years of consecutive overages, a management plan must be provided to the Northern Panel with specific management actions that will eliminate the overage. The accrual of underages is not intended to allow either Alaska or Canada to modify its fishing behavior in any given year to harvest the accrued underage.

During the 1999 season the total run of Nass/Skeena sockeye salmon was 1,700,000 fish. Escapement into the two rivers totaled 942,650 sockeye leaving an AAH of 755,410 sockeye. Based on agreed harvest sharing arrangements this would have allowed for a Nass/Skeena sockeye harvest of approximately 18,500 prior to statistical week 31 in District 4. The total sockeye harvest prior to Statistical Week 31 was 7,660 fish of which 3,360 were Nass/Skeena sockeye. This left an underage of approximately 15,140 fish.

The Canadian Department of Fisheries and Oceans has a preseason expectation of 3,025,000 sockeye for the Nass/Skeena Rivers for 2000. If the 2000 forecast is accurate then the AAH for District 4 will be approximately 47,000 sockeye. With this amount of sockeye available the department will manage the first three weeks of the fishery conservatively. District 4 purse seine fishers should expect openings of 10 to 15 hours per week in Statistical Weeks 28, 29, and 30. The first opening will occur on Sunday, July 2.

Beginning in Statistical Week 31 the management of the district will be based on the strength of the pink salmon returns to southern Southeast Alaska. Unless there are over-riding conservation concerns the fishing time allowed in the district post-week 30 will be the same as allowed in the inside southern Southeast districts.

### **Inside Fishing Areas**

Aerial surveys of early run pink salmon producing areas, primarily Boca de Quadra, east Behm Canal, and Ernest Sound will begin in late June. Seining is expected to begin on Sunday, July 2 (Statistical Week 28). The initial fishing period will be for 15 hours and will be confined to the southeast portion of Section 1-F and portions of Section 7-A (Anan). The southernmost section of District 2 may open later in Statistical Week 28 for a directed pink salmon fishery if District 1 reopens. If District 1 does not reopen, District 2 will open for the first time on Sunday, July 9 for a directed pink salmon fishery.

As in 1999, the department will open a small portion of the lower District 2 outside of the THA when Kendrick Bay opens in late June. This opening is designed to see if wild stock salmon will be greatly impacted while harvesting Kendrick Bay chum salmon, and to see if the quality of Kendrick Bay salmon chum salmon can be maximized.

As in recent years, seining will be limited to the southern portion of District 2 until escapements of pink salmon to northern Clarence Strait, Ernest Sound, Cholmondeley Sound, and Kasaan Bay can be adequately assessed. Additionally, no seining should be expected in middle Clarence Strait, along the Ship Island and Tolstoi shorelines, until run strength of pink salmon returns to west Behm Canal, Thorne Bay, District 6, and Section 7-B is determined.

Returns of pink salmon to District 3 are expected to be average to above average based on parent-year escapements. However, the department will closely monitor the smaller systems within the district to determine the effects of the 1998/99 winter on those systems.

Parent-year pink salmon escapements were highly variable in District 5 (Sumner Strait). Seine openings will depend upon observed escapements in key indicator streams and overall run strength in fishing districts with earlier run timing. Any openings will initially be limited in area and probably won't occur prior to the second week of August. Escapements were good or excellent in most of the District 6 streams in Clarence Strait. Openings will probably begin in District 6 in early to mid-August. Section 7-B (lower Ernest Sound) normally opens in early to middle August. Escapements were excellent in Union Bay and openings will probably begin in early August.

# McDonald Lake Sockeye

The forecasted return of sockeye salmon to McDonald Lake in Section 1-D is 135,000 fish with an escapement goal of 85,000 fish. The department will monitor returns beginning in early July by aerial surveys and test fishing with purse seine vessels. If a harvestable surplus is evident, a limited seine fishery in the immediate vicinity of Yes Bay will be allowed from mid-July to early August. If a fishery is authorized, the opening will be in conjunction with other seine openings and it may be of short duration to minimize impacts on other stocks.

### **Fall Chum Fisheries**

Some watersheds along the eastern shoreline of Prince of Wales Island in District 2 produce late-run chum salmon that have traditionally supported fall purse seine fisheries. Although no formal forecasts are made for these stocks, some expectations can be based on parent-year escapements. In Disappearance Creek and Lagoon Creek, the primary chum salmon spawning systems in Cholmondeley Sound, the majority of 1996 parent-year chum salmon escapement goals were achieved or exceeded. Escapements were average for the Karta River in Kasaan Bay, and in Moira Sound streams. The first opening for fall-run chum salmon can be expected about September 10.

# **Terminal Hatchery Fisheries**

For the 2000 season, special harvest area seine fisheries will occur at Neets Bay, Nakat Inlet, Eastern Passage, and Kendrick Bay to harvest fish returning to Southern Southeast Regional Aquaculture Association (SSRAA) enhancement facilities.

SSRAA expects a large return of approximately 2.5 to 3.0 million summer chum salmon to Neets Bay in 2000. Due to this large forecast Neets Bay may be open for at least two rotational fisheries by the purse seine and gillnet fleets in mid-June to early July. The dates and time for the Neets Bay fisheries have not been set at this time. If summer chum returns to Neets Bay come in larger than forecasted additional rotational periods may be allowed.

The 2000 season will be the eighth year of summer chum salmon returns to Kendrick Bay, located on the southeastern shore of Prince of Wales Island in District 2. The 2000 return is expected to be approximately 124,000 chum salmon. The Kendrick Bay terminal harvest area (THA) has been designated for purse seine and troll gear only and is managed in consultation with SSRAA. The department will open the Kendrick Bay THA in conjunction with the first Hidden Falls Hatchery opening in late June. The department will allow for a limited purse seine opening in lower District 2 just adjacent to the THA to see if wild stock salmon would be impacted and if the quality of harvested chum salmon can be improved. The THA will be open continuously until the end of the pink salmon seine season. Adjustments to this plan may be made during the season if the harvest of non-targeted species is excessive. The Kendrick Bay THA is defined as follows:

Kendrick Bay: The waters of Kendrick Bay west of the 131°59'00"W. longitude.

The forecasted total return to Nakat Inlet is 83,000 summer chum, 32,000 fall chum and 16,000 coho. The forecasted total return of Eastern Passage salmon is 112,000 chum, 20,000 coho, and 5,000 chinook.

The fisheries in Nakat Inlet and Eastern Passage will be managed jointly with SSRAA, and in accordance with existing Board of Fisheries approved management plans. The open areas will be as follows:

Nakat Inlet: The waters of Nakat Inlet between 54°50' N. latitude and 54°56' N. latitude.

Eastern Passage: The waters of Eastern Passage south of 56°24'50" N latitude and west of 132°06'36" W. longitude.

As of the date this management plan was published, SSRAA had not determined the rotational fishing schedule for Nakat Inlet and Eastern Passage. Once the fishing schedule for these areas is finalized, the department will issue a news release listing the open fishing dates.

Fishers should check with the department or SSRAA, prior to fishing, to obtain updated fishery information. Fishers are also requested to ensure that fish caught in terminal areas are reported correctly on the fish tickets. This will enable the accurate documentation of fish taken from the special harvest areas, and allow area-specific catch sampling to determine contribution rates based on recovery of coded microwire tags.

### NORTHERN DISTRICTS PURSE SEINE FISHERY

# 2000 Pink Salmon Returns

Overall pink salmon escapement goals were met or exceeded in the parent year (1998) in Districts 9, 10, 12, and 13 and good returns are expected to most streams in these areas. Spawning escapements in

District 11 were variable, ranging from very good in the southern portions of the district to poor in the northern areas. Escapements in Districts 14 and 15 were below goal. As a result, harvest opportunities on stocks returning to these areas may be limited.

# **Management Problems**

With no specific northern Southeast Alaska pink salmon return prediction, it will be necessary to assess the overall run strength of the return early in the season. Another early-season management concern will be to prevent excessive interception of weak salmon stocks in mixed stock fishing corridors (e.g., Icy Strait and upper Chatham Strait) until run strengths to near-terminal and terminal areas can be adequately assessed.

# Management Plan

The northern Southeast Alaska purse seine fishery management plan consists of separate segments for the outside areas (Sections 13-A and 13-B), the inside areas, the fall chum salmon fishery, and the Hidden Falls and Deep Inlet Hatchery terminal fisheries.

### **Inside Fishing Areas**

The 2000 seining season will begin on Thursday, June 22, with an initial open period of 15 hours to harvest expected strong summer chum and early pink salmon returns. During the first open period seining will be allowed in portions of District 12 in Tenakee Inlet and Point Augusta in Chatham Strait. Very few pink salmon have been harvested in District 10 and Section 13-C during previous early-June openings so the first openings in these areas will occur on Sunday, June 25, when Tenakee Inlet, Point Augusta, and Hidden Falls will also be open.

Parent-year escapements of summer chum salmon in Tenakee Inlet were very large and are expected to produce an above average return to this area. Parent-year pink salmon escapements in Tenakee Inlet were also good. An aggressive early season fishing schedule for Tenakee Inlet can be expected. The upper portion of Tenakee Inlet will be opened and fishing will continue as long as escapement continues to build adequately. Portions of the Basket Bay shoreline may also be opened to harvest pink salmon returns to Tenakee Inlet and Peril Strait if escapements to local streams are adequate.

Escapements of summer chum salmon to Port Frederick systems in the 1996 parent year were the best in many years. Some early season harvest opportunity on these stocks is anticipated in outer portions of Port Frederick beginning June 25. This area will probably close in early July because little or no harvestable surplus of Port Frederick pink salmon is expected.

Beginning June 25, portions of Section 13-C will be open to assess run strength of pink salmon returning to Hoonah Sound streams. Further openings in 13-C will be determined in-season based on catch and observations of escapement. In mid-July, the west boundary of the fishing area in Peril Strait will be moved towards Chatham Strait to improve the quality of the harvest and to ensure that pink salmon escapement goals for Hoonah Sound and outer Peril Strait streams are obtained. Portions of Section 13-C, west of the Duffield Peninsula, and Section 13-A in lower Peril Strait, may remain open to provide fishing opportunity on pink salmon migrating through Salisbury Sound and lower Peril Strait to Hoonah Sound streams.

Parent-year escapements in Seymour Canal and in District 10 were generally good to excellent. If Seymour Canal runs are strong, openings to access these fish may be allowed along the Big Bend shoreline in District 10 and in lower Seymour Canal. Openings to target Hood Bay and Chaik summer chum salmon along the lower Admiralty Island shoreline may occur in July because parent-year escapements were above average.

Subsequent seining for early-run pink salmon returns will be based upon aerial survey and fishery performance assessments of run strength. Aerial surveys to evaluate run strength will begin in late June for the northern inside fishing districts. Catch rates in the Cross Sound troll fishery and incidental catches of pink salmon at the Hidden Falls Hatchery terminal fishery during the first three weeks of the season will also be monitored as indicators of pink salmon run strength. The department will open a one-mile section of shoreline by Point Augusta in District 12 in conjunction with other weekly openings to provide an additional assessment of incoming run strength of early-run pink salmon. The Point Augusta shoreline will be included in mid-week openings early in the season to obtain additional stock strength information. Test fishing will be conducted at Point Gardner and Kingsmill Point in July to assess the strength and timing of the pink salmon returns entering Frederick Sound, and along the Hawk Inlet Shoreline beginning June 30 to assess the strength of pink salmon returns entering the northern inside waters of District 11 and 15.

Seining in District 12 along the Admiralty Island shoreline may expand in mid-to-late July depending on the observed run strength of middle-run pink salmon stocks in District 10 and 11, and continue as long as Chatham escapements develop satisfactorily. Parent-year pink salmon escapements in west Admiralty Island streams north of Angoon were below average but escapements in streams between Angoon and Point Gardner were outstanding and fishing opportunities along this shoreline are expected beginning in late July or early August.

Pink salmon escapements in District 14 were very poor in 1998. As a result, openings directed at pink salmon in Port Frederick, Idaho Inlet, Port Althorp and along the Homeshore are not expected in 2000. The Whitestone shoreline area in District 14 may open in late July or early August with fishing times and areas dependent upon observed strengths of local pink salmon stocks.

Middle-run pink salmon returns should begin entering the inside waters of the northern districts during July. Seining is expected to begin in District 9 during mid-July near Red Bluff Bay in Section 9-A, in late-July along the Admiralty Island shore in Section 9-B, and in early August in Section 9-A near Little Port Walter north of Armstrong Point. Parent-year escapements of pink salmon were very good in Section 9-B. Openings in District 12 along the Catherine Island shoreline and in portions of Kelp Bay may occur in early August to harvest surplus pink salmon returning to Kelp Bay streams.

### **Hawk Inlet Shore Fishery**

The Admiralty Island shoreline between Funter Bay and Point Marsden in Chatham Strait is known as the Hawk Inlet Shore. Fishing is allowed in this area to harvest pink salmon stocks migrating northward to Taku River, Lynn Canal, and upper Stephens Passage. During July, the department will manage the Hawk Inlet Shore fishery in accordance with the "Northern Southeast Seine Fishery Management Plan (5 AAC 33.366)." This plan stipulates that any portion of the area north of Point Marsden may be opened when a harvestable surplus of pink salmon is observed. Openings must also consider the conservation of all species, and the area must be closed in July after 15,000 sockeye salmon have been harvested.

During August, openings along the Hawk Inlet shore may extend northward to the latitude of Hanus Reef Light if north-migrating pink salmon stocks remain strong. If north-migrating salmon returns are poor and south-migrating stocks are strong, seining will be allowed only south of Point Marsden.

Pink salmon escapements in northern inside areas were mixed during 1998. Escapements were good to excellent from the Taku River south throughout Stephens Passage, but were poor in northern Stephens Passage and lower Lynn Canal. Openings along the Hawk Inlet shore north of Point Marsden will be based on the observed run strength of north-migrating stocks of pink salmon. The assessment methods used by the department to determine if run strengths are adequate and a harvestable surplus of pink salmon is available for harvest will include:

- 1. Parent-year escapements of pink salmon stocks in the Taku River, Stephens Passage, and Lynn Canal
- 2. Inseason forecasts of pink salmon run size from the "Icy Strait troll index" program.
- 3. Test fishing at designated locations along the Admiralty Island shoreline north of Point Marsden.
- 4. Aerial assessments of pink salmon abundance along the Admiralty Island Shoreline north of Point Marsden.
- 5. Pink salmon catches in the department's Taku River fish wheels.
- 6. Pink salmon marine sport fish catch rates in the Juneau area (lower Lynn Canal and upper Stephens Passage).
- 7. Fishery performance of District 11 and District 15 drift gillnet fisheries.

At the Board of Fisheries meeting in Ketchikan in January 1994, the department met with representatives of the Southeast Alaska Seiners Association (SEAS) and the United Southeast Alaska Gillnetters (USAG) to discuss procedures used by the department to account for sockeye salmon catches along the Hawk Inlet Shoreline north of Point Marsden during July fishing periods. The SEAS and USAG representatives agreed to the following change in the sockeye catch accounting procedure for this fishery:

"All sockeye salmon harvested by any seine boat the department identifies as fishing north of Point Marsden during any July fishing period when other nearby areas (i.e., Point Marsden to Point Hepburn, Whitestone Shore, or the Point Augusta Test Fishery) are open concurrently, will be counted against the 15,000 sockeye salmon quota for the Hawk Inlet fishery north of Point Marsden. During the openings, the department will utilize fishery overflights, on-the-grounds sampling, and interviews to estimate the sockeye harvest north of Point Marsden."

The purpose of this change was to provide the department with more flexibility to open areas adjacent to the Hawk Inlet shore fishery (e.g., south of Point Marsden, Point Augusta, and Whitestone shore) when pink salmon run strength warrants.

# **Hidden Falls Terminal Hatchery Fishery**

The Hidden Falls Hatchery, operated by the Northern Southeast Regional Aquaculture Association (NSRAA), expects a return of approximately 2,750,000 chum salmon in 2000. Of this total return, approximately 2,365,000 will be available for the common property harvest. The initial Hidden Falls opening for the 2000 season is scheduled for June 25. As usual, seiners are advised that openings at Hidden Falls during the 2000 season may be announced with a 24-hour notice to maximize fish quality.

The Hidden Falls terminal harvest area will include the waters of Chatham Strait, Kasnyku Bay, and Takatz Bay, within two nautical miles of the Baranof Island shoreline south of a range marker at South Point, and north of a range marker located at 57°06'50" N. latitude (½ mile south of Takatz Bay). The boundaries may be extended north to include Kelp Bay and the Catherine Island shoreline if chum salmon escapements to Kelp Bay streams are being met. The southern boundary may be expanded south to the District 12 boundary

near Cascade Bay if the overall strength of pink salmon returns are sufficient to meet escapements in the area.

# **Deep Inlet Terminal Hatchery Fishery**

NSRAA expects a return of 3,000,000 chum salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2000. Cost recovery and broodstock goals for the Deep Inlet returns are 335,000 fish and 30,000 fish respectively, allowing for a common property harvest of approximately 2,600,000 chum salmon by purse seine, drift gillnet, and troll gear. Cost recovery will occur in the newly expanded Silver Bay SHA on fish returning to the Medvejie Hatchery or in the Deep Inlet SHA.

At the February 2000 Board of Fisheries meeting in Sitka the Silver Bay SHA was expanded to include waters of Eastern Channel east of a line from Silver Point to the southernmost tip of Galankin Island, with a further expansion area east of a line from Cape Burunof to Sentinel Rock to Makhnati Island to Simpson Rock to the southernmost tip of Galankin Island from July 1 to July 24 and after the August coho troll closure. Based on plans developed by the NSRAA board during their November 1999 meeting, at least 50% of the cost recovery goal will be met by July 31. During July the Deep Inlet THA openings may be reduced to one day of seine fishing and two days of gillnet fishing a week as needed to achieve this goal. The NSRAA board will meet again in March to finalize cost recovery plans and THA opening schedules. In August and early September openings in the THA will be scheduled for seine gear on Sundays and Wednesdays, for gillnet gear on Mondays, Tuesdays, Thursdays, and Fridays, and for cost recovery and troll on Saturdays. This fishing schedule may be adjusted inseason depending on fish quality or cost recovery considerations.

The fishery will be managed jointly with NSRAA, and in accordance with the Deep Inlet Terminal Harvest Management Plan (5 AAC 33.376). The plan provides for the distribution of the harvest of hatchery-produced chum salmon between the purse seine and drift gillnet fleets. The ratio of gillnet fishing time to purse seine fishing time will be 2:1. Additionally, the Board of Fisheries has allowed trolling to occur when net fisheries are closed and when trolling does not interfere with cost recovery. The terminal harvest area during the 2000 season will be as follows:

**Deep Inlet THA**: Deep Inlet, Aleutkina Bay, and contiguous waters south of a line from a point west of Pirates Cove at 135°22'38" W. longitude, 56°59'21" N. latitude to the westernmost tip of Long Island to the easternmost tip of Long Island to the westernmost tip of Emgeten Island to the westernmost tip of Berry Island to the southernmost tip of Berry Island to the southernmost tip of Berry Island to the westernmost tip of the southernmost island in the Kutchuma Island group to the easternmost tip of the southernmost island in the Kutchuma Island group to the westernmost tip of an unnamed island at 135°17'40" W. longitude, 57°00'18" N. latitude to a point on the southern side of the unnamed island at 135°16'47" W. longitude, 57°00'05" N. latitude and then to a point on the Baranof Island Shore at 135°16'32" W. longitude 56°59'56" N. latitude.

During the 2000 season, the boundaries of the Deep Inlet THA may be changed by NSRAA and the department to help resolve conflicts between fishers and local private landowners in the area if they continue to occur.

When chum salmon begin returning to the Deep Inlet THA in early July, the area will be open to purse seine, drift gillnet, and troll gear. In early September, the Deep Inlet THA boundaries may be adjusted to reduce interception of wild coho salmon returning to Salmon Lake. The department and NSRAA staff will

continue to monitor coho escapements to Salmon Lake to determine if THA boundary adjustments as well as management measures for other fisheries are needed to provide for Salmon Lake escapement.

Seiners are requested to ensure that fish caught in terminal areas are reported correctly on their fish tickets. This will enable the accurate documentation of fish taken from the Deep Inlet Terminal Harvest Area.

#### **Fall Chum Salmon Fisheries**

Portions of northern Southeast Alaska support returns of fall-run chum salmon that are harvested by purse seine gear. Fishing opportunities are expected in Port Camden beginning about August 10. Fishing in Security Bay usually occurs the first week in September if the observed run strength is good. Escapements in Security Bay were excellent in the 1995 parent year. Parent-year escapements to Excursion Inlet were about average. Fall chum openings may also occur in Nakwasina Sound. Fall chum fisheries will be managed on the basis of observations of run strengths in the bays beginning in mid-August and continuing through September.

# Outside Fishing Areas (Sections 13-A and 13-B)

Management of Sections 13-A and 13-B, along the outer coasts of Baranof and Chichagof Islands, is distinct from the management of the northern inside areas. Salmon returning to these areas enter directly from the ocean and do not pass through major inside migration corridors. Pink salmon escapements to northern outside areas were approximately 1.5 times higher than any previous escapement index. On the basis of recent trends excellent pink salmon returns are expected to Whale Bay, West Crawfish, Sitka Sound, Salisbury Sound, and Khaz Bay. Openings in Portlock Harbor and Lisianski Inlet are not likely but returns to these areas will be monitored inseason for run strength. Seining for pink salmon returning to Deep Bay and Hoonah Sound could begin in mid-July in portions of Salisbury Sound and in late July in other outside water areas.

Summer chum salmon returns will be monitored to determine run strengths beginning in early July. If harvestable surpluses can be identified, fishers may expect portions of Sections 13-A and 13-B to be open by mid-July. Openings are possible in Whale Bay, West Crawfish Inlet, Slocum Arm, and Portlock Harbor.

Short purse seine openings to harvest sockeye salmon along the outer coast of lower Baranof Island may occur from mid-July to early August. These fisheries are intended to target on fish returning to Necker and Redfish Bays. Openings will be dependent on inseason observations of run strength.

### LIST OF MANAGEMENT CONTACTS

The following Division of Commercial Fisheries management staff may be contacted regarding this plan:

Scott Marshall Region 1 Supervisor P.O. Box 240020 Douglas, AK 99824 (907) 465-4250 Scott Kelley Region 1 Management Biologist P.O. Box 240020 Douglas, AK 99824 (907) 465-4250

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Phil Doherty, Scott Walker, and Don House Management Biologists 2030 Sea Level Drive, Suite 205 Ketchikan, AK 99901 (907) 225-5195 Gordie Woods Fisheries Technician P.O. Box 200 Wrangell, AK 99929 (907) 874-3822

Bill Davidson and David Gordon Management Biologists 304 Lake Street, Room 103 Sitka, AK 99835 (907) 747-6688

The following is a list of telephone numbers that may be called during the fishing season to obtain recorded announcements concerning areas open to purse seine fishing:

 Ketchikan
 (907) 225-6870

 Petersburg
 (907) 772-3700

 Sitka
 (907) 747-5022

 Juneau
 (907) 465-8905

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